

EXECUTIVE SUMMARY

It is the goal of the City of Lincoln, Public Works and Utilities Department, Engineering Services Division, to monitor the City's main arterials over time. Approximately every three years, each arterial should be monitored to track traffic patterns, growth and operations. In Spring 2002, the City contracted The Schemmer Associates Inc. to conduct an analysis and study of traffic conditions on six corridors. Two additional corridors were added to the contract in Fall 2002. Along these eight corridors, travel time and intersection delay studies were conducted with the goal of improving traffic operations through modified signal timings, rather than by widening City streets or other physical roadway improvements.

This report summarizes three tasks conducted as part of this project. These tasks include:

1. Performing signal timing optimization and coordination analysis for eight study corridors, including:
 - 9th/10th Streets (Van Dorn Street to "Q" Street)
 - 16th/17th Streets (South Street to Vine Street (17th Street)/"W" Street (16th Street))
 - "O" Street (9th Street to 33rd Street)
 - Normal Boulevard/Capitol Parkway/"K" & "L" Streets (9th Street to 56th Street)
 - Superior Street (I-180 to Cornhusker Highway)
 - Cornhusker Highway (11th Street to Superior Street/Havelock Avenue)
 - S. 27th Street (Van Dorn Street to "O" Street)
 - N. 27th Street ("O" Street to Kensington Drive)
2. Conducting "before" and "after" travel time and intersection delay studies along the eight study corridors.
3. Conducting data collection activities, including 6-hour turning movement counts at 20 signalized intersections and 48-hour mechanical ("tube") counts at 50 locations.

Results from these studies were used to estimate the mobility benefits that are generated through the modification of traffic signal timings. As a result of the signal timing modifications made along these eight corridors, an estimated \$722,000 in annual mobility benefits can be expected during the three peak time periods. Over a three-year period, these savings can be as high as \$2,166,000.